

**ABSTRACT OF THE DISCLOSURE**

An arrangement is disclosed for generating a coarse level mesh representing a surface, from a finer level mesh surface representation. The arrangement includes an indicator value generator and a coarse level mesh generator. The indicator value generator, for respective ones of the points in the finer level mesh surface representation, evaluates an indicator function, the value indicating whether a subdivision-inverse filter methodology or a least-squares optimization methodology is to be used to determine a position for the corresponding point in the coarse level mesh representation. The coarse level mesh generator determines, for each of the points that is to be provided in the coarse level mesh representation, a position in response to the position of the corresponding point in the finer level mesh representation, in accordance with the one of the subdivision-inverse filter methodology and least-squares optimization methodology indicated by the indicator value generated by the indicator value generator.